

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-15. (cancelled)

16. (currently amended) An intravascular catheter comprising an elongate shaft including an inner polymer layer defining a lumen of the elongate shaft, a reinforcement layer disposed about the inner polymer layer, and an outer polymer layer disposed about the reinforcement layer, the reinforcement layer comprising a tubular braid having a first helical member interwoven with a second helical member forming a plurality of crossover points and a plurality of axial members disposed between the first helical member and the second helical member at each of the plurality of crossover points, wherein the plurality of axial members are not fixed to the inner polymer layer and the outer polymer layer such that the plurality of axial members are moveable relative to the inner polymer layer and the outer polymer layer such that the lumen of the elongate shaft and an outer surface of the outer polymer layer are free from radial protrusions.

17. (original) An intravascular catheter as in claim 16, wherein the axial members are uniformly spaced about the circumference of the shaft.

18. (original) An intravascular catheter as in claim 17, wherein four axial members are uniformly spaced apart by 90° about the circumference of the shaft.

19. (original) An intravascular catheter as in claim 17, wherein eight axial members are uniformly spaced apart by 45° about the circumference of the shaft.

20. (original) An intravascular catheter as in claim 16, wherein the elongate shaft includes a proximal portion and a distal portion, and wherein the distal shaft portion has fewer axial members than the proximal shaft portion.

21. (cancelled)

22. (original) An intravascular catheter as in claim 16, wherein the first and second helical members each comprise polymeric material.

23. (original) An intravascular catheter as in claim 22, wherein the first and second helical members each comprise a plurality of monofilaments.

24. (original) An intravascular catheter as in claim 16, wherein the axial members each comprise a polymeric material.

25. (original) An intravascular catheter as in claim 24, wherein the axial members each comprise a plurality of polymeric monofilaments.

26. (original) An intravascular catheter as in claim 25, wherein the monofilaments are held together statically.

27. (original) An intravascular catheter as in claim 26, wherein the monofilaments comprise LCP.

28. (original) An intravascular catheter as in claim 27, wherein the monofilaments are arranged side-by-side to collectively define a flat ribbon.

29. (currently amended) A method of making a portion of a shaft of an intravascular catheter, the method comprising the steps of:

providing a carrier including an elongate tube having an inner polymer layer disposed thereon;

braiding a first helical member, ~~[[and]]~~ a second helical member, and a plurality of axial members about the carrier forming a plurality of crossover points, wherein the ~~such that~~ a plurality of axial members are disposed between the first and second helical members at each of the plurality of crossover points such that the plurality of axial members are not fixed to the inner polymer layer ~~to form a reinforcement layer that is free of radial protrusions~~; and

disposing an outer polymer layer over the reinforcement layer, wherein the outer polymer layer is not fixed to the plurality of axial member.

30. (original) A method of making a portion of a shaft of an intravascular catheter as in claim 29, wherein the axial members are uniformly spaced about the circumference of the shaft.

31. (original) A method of making a portion of a shaft of an intravascular catheter as in claim 30, wherein four axial members are uniformly spaced apart by 90° about the circumference of the shaft.

32. (previously presented) A method of making a portion of a shaft of an intravascular catheter as in claim 30, wherein eight axial members are uniformly spaced apart by 45° about the circumference of the shaft.

33-36. (canceled)